Gloria Twine Chisum is an Oklahoma native hidden figure. She saved the day for Navy aircraft pilots who were facing dangerous visual dilemmas when flying. Chisum was an experimental psychologist who developed eyewear that protects a pilot's eyes in extreme flying conditions such as nuclear explosions, lightning and sharp turns. She worked as a research psychologist for the United States Navy and was a leading authority on solving visual problems that were associated with operating high performance aircrafts. She played a significant role in the scientific discovery when she helped develop protective goggles for pilots that would automatically darken to shield eyes from sudden bright light. Chisum was born in 1930 in Muskogee. She took an interest in science at a very early age. She was curious on how things worked and once took apart her very first watch and was able to put it completely back together in working condition. She left Oklahoma to attend college at Howard University where she earned both a bachelor's and master's degree. She continued on to the University of Pennsylvania where she became interested in vision and visual performance and perception, which is an area of behavioral psychology. In 1958 she received a graduate fellowship and earned a Ph.D. in experimental psychology from the University of Pennsylvania. In 1965, Chisum was made director of the Vision Research Laboratory at the Naval Air Development Center in Warminster, Pennsylvania. As a research psychologist, she worked on methods for flash blindness protection, in which she became an expert. She also worked on methods of protecting jet pilots against vision loss during sharp turns. It was at the Naval Air Development Center that she developed protective goggles to shield pilots' eyes from bright flashes. During

her development, she spent many hours setting up the instruments for experiments and doing many tests to ensure she did not design a poor device that would cause a pilot to suffer fatigue or interfere with their performance. One of the first things that Chisum did on her research was make an assessment on how long a pilot in a high performance aircraft can safely control his plane without vision. She discovered that pilots can fly three to five seconds in a critical maneuver without vision. After directing the development of several devices for flash blindness protection, she then became involved with projected image displays which helped pilots recover from flash blindness. Chisum is an internationally recognized expert in the area of visual performance enhancement and protection. She has received numerous scientific achievement awards for her work. Chisum has published more than 90 scientific papers and reports and holds two patents. She is a 1984 inductee of the Oklahoma Hall of Fame. She has made a lasting impact on our society with her development of protective goggles. Chisum is an African American Oklahoma hidden figure whose story has gone unsung as a valuable pioneer of STEM work. She is a true woman of vision.